



NOAA In Your State

Mississippi 4

"NOAA's science based work touches 300 million Americans daily, protecting lives and livelihoods. NOAA's products and services are the result of the hard work of our dedicated staff and partner organizations located in program and research offices throughout the globe. The following is a summary of NOAA programs based in, and focused on, your state or territory. The entries are listed by statewide, region, and then by congressional districts and cities or towns."

Dr. Kathryn Sullivan

Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator

MS

Nationwide

Office of Oceanic and Atmospheric Research (OAR) - National Sea Grant Law Center

NOAA's National Sea Grant College Program is a federal-university partnership that integrates research, education and outreach (extension and communications). Sea Grant forms a network of 33 programs in all U.S. coastal and Great Lakes states, Puerto Rico and Guam. The National Sea Grant Law Center was established in 2002 and its mission is to encourage a well-informed constituency by providing legal information and analysis to the Sea Grant Community, policy-makers, and the general public through a variety of products and services.

The National Sea Grant Law Center's major responsibilities are (1) integrating the efforts of ocean and coastal law researchers and users in the Sea Grant network nationwide; (2) conducting research on current ocean, coastal, and Great Lakes law issues; (3) providing outreach and advisory services to the Sea Grant network and coastal constituents; (4) disseminating information and analysis through periodic workshops and conferences as well as publications, and (5) serving as a focal point for Sea Grant's law-related issues and promoting the growth and development of a Sea Grant legal network.

Statewide

National Marine Fisheries Service (NMFS) - <u>Southeast Regional Office</u> and <u>Southeast Fisheries Science Center</u>
NMFS studies, protects and conserves living marine resources to promote healthy, functioning marine ecosystems, afford economic opportunities and enhance the quality of life for the American public. NMFS' Southeast Regional Office (headquartered in Saint Petersburg, FL) and Southeast Fisheries Science Center (headquartered in Miami, FL) are responsible for living marine resources in federal waters of the Gulf of Mexico, South Atlantic, and U.S. Caribbean. Using

the authorities provided by the *Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Marine Mammal Protection Act* and other federal statutes, the Southeast Regional Office and Southeast Fisheries Science Center partner to assess and predict the status of fish stocks, marine mammals and other protected resources, develop and ensure compliance with fishery regulations, restore and protect habitat, and recover threatened and endangered species in waters off Mississippi and throughout the Southeast Region. The Southeast Regional Office conducts mandated essential fish habitat consultations associated with extensive energy and coastal development activities, participates in state and regional habitat planning and restoration efforts, provides assistance during hazardous material incidents and hurricane events, and participates in the planning processes for major federal water development projects.

The Southeast Fisheries Science Center implements a multi-disciplinary science and research program in support of living marine resource management. The Science Center develops the scientific information required for fishery resource conservation; fishery development and utilization; habitat conservation; the protection of marine mammals, sea turtles and other protected species; impact analyses and environmental assessments for management plans and/or international negotiations; and pursues research to answer specific needs in areas of population dynamics, fishery economics, fishery engineering, food science, and fishery biology. The Southeast Fisheries Science Center has two facilities in Mississippi in Pascagoula, MS and Stennis Space Center, Bay St. Louis, MS that are collectively known as the Mississippi Laboratories.

National Marine Fisheries Service (NMFS) - Bay-Watershed Education and Training Program

The NOAA Bay-Watershed Education and Training (B-WET) Program is an environmental education program that promotes locally relevant, experiential learning in the K-12 environment. The primary delivery of B-WET is through competitive funding that promotes Meaningful Watershed Educational Experiences (MWEEs). B-WET currently serves seven areas of the country: California, Chesapeake Bay, Great Lakes, Gulf of Mexico, Hawai'i, New England, and the Pacific Northwest. The Gulf of Mexico B-WET Program recognizes that knowledge and commitment built from firsthand experience, especially in the context of one's community and culture, is essential for achieving environmental stewardship. Gulf of Mexico B-WET responds to regional education and environmental priorities through local implementation of competitive grant funds. Please see the regional funding opportunity for priorities and eligibility details.

National Weather Service (NWS) - Automated Surface Observing Systems Stations

The Automated Surface Observing Systems (ASOS) program is a joint effort of the National Weather Service (NWS), the Federal Aviation Administration (FAA), and the Department of Defense (DOD). ASOS serves as the Nation's primary surface weather observing network. ASOS is designed to support weather forecast activities and aviation operations and, at the same time, support the needs of the meteorological, hydrological, and climatological research communities. ASOS works non-stop, updating observations every minute, 24 hours a day, every day of the year observing basic weather elements, such as cloud cover, precipitation, wind, sea level pressure, and conditions, such as rain, snow, freezing rain, thunderstorms, and fog. There are 15 ASOS stations in Mississippi.

National Weather Service (NWS) - Cooperative Observer Program Sites

The National Weather Service (NWS) Cooperative Observer Program (COOP) is truly the Nation's weather and climate observing network of, by and for the people. More than 10,000 volunteers take observations on farms, in urban and suburban areas, National Parks, seashores, and mountaintops. The data are representative of where people live, work and play. The COOP was formally created in 1890 under the NWS Organic Act to provide observational meteorological data, usually consisting of daily maximum and minimum temperatures, snowfall, and 24-hour precipitation totals, required to define the climate of the United States and to help measure long-term climate changes, and to provide observational meteorological data in near real-time to support forecast, warning and other public service programs of the NWS.

The data are also used by other federal (including the Department of Homeland Security), state and local entities, as well as private companies (such as the energy and insurance industries). In some cases, the data are used to make billions of dollars' worth of decisions. For example, the energy sector uses COOP data to calculate the Heating and Cooling Degree Days which are used to determine individuals' energy bills monthly. There are 148 COOP sites in Mississippi.

National Weather Service (NWS) - NOAA Weather Radio All Hazards Transmitters

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service (NWS) forecast office. NWR broadcasts official NWS warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week. Working with the Federal Communication Commission's (FCC) Emergency Alert System, NWR is an "All Hazards" radio network, making it the single source for comprehensive weather and emergency information. In conjunction with federal, state, and local emergency managers and other public officials, NWR also broadcasts warning and post-event information for all types of hazards – including natural (such as earthquakes or avalanches), environmental (such as chemical releases or oil spills), and public safety (such as AMBER alerts or 911 Telephone outages). Known as the "Voice of NOAA's National Weather Service," NWR is provided as a public service by the NWS. NWR includes 1,100 transmitters covering all 50 states, adjacent coastal waters, Puerto Rico, the U.S. Virgin Islands, and the U.S. Pacific Territories. There are 12 NWR transmitters in Mississippi.

Office of Oceanic and Atmospheric Research (OAR) - Sea Grant College Program

NOAA's National Sea Grant College Program is a federal-university partnership that integrates research, education and outreach (extension and communications). Sea Grant forms a network of 33 programs in all U.S. coastal and Great Lakes states, Puerto Rico and Guam. The Mississippi-Alabama Sea Grant Consortium is a federal-state partnership that matches NOAA Sea Grant expertise and resources with state academic institutions. Created in 1972, members of the consortium include Auburn University, Dauphin Island Sea Lab, Jackson State University, Mississippi State University, University of Alabama, University of Alabama at Birmingham, University of Mississippi, University of Southern Mississippi, and the University of South Alabama. The mission of the Mississippi-Alabama Sea Grant Consortium is to enhance the sustainable use and conservation of ocean and coastal resources to benefit the economy and environment. The bi-state consortium focuses on healthy coastal ecosystems, sustainable fisheries and aquaculture, resilient communities and economies, and environmental literacy and workforce development. Sea Grant specializes in extension, research, outreach and education.

Coastal

National Marine Fisheries Service (NMFS) - Restoration Center

NMFS Restoration Center works with private and public partners in Mississippi to provide technical assistance, restore tidal marshes and oyster reefs, and remove marine debris, including derelict crab traps. Through Community-based Restoration Program projects, more than 580 acres of fisheries habitat have been restored and rehabilitated since 2000. The Community-based Restoration Program has partnered with the Mississippi Department of Marine Resources on three separate projects to restore 15 acres of oyster reef habitat. NOAA's Restoration Center is working with the state to improve nearly six miles of shoreline as part of the Hancock County Marsh Living Shoreline Deepwater Horizon Early Restoration Project. The goal of the project is to reduce shoreline erosion by dampening wave energy and encouraging reestablishment of habitat in the region.. The Restoration Center is deeply engaged in the coordination of projects through RESTORE, Natural Resource Damage Assessment, and the Gulf Environmental Benefit Fund as a result of the Deepwater Horizon oil spill

National Marine Fisheries Service (NMFS) - Species Recovery Program

Under the authority of section 6 of the Endangered Species Act, the Cooperation with States Program brings states, NMFS, and other partners together to recover threatened and endangered species. Competitive grants are awarded to states through the Species Recovery Grants to States Program to support management, monitoring, research and outreach efforts for species that spend all or a portion of their life cycle in state waters. The funded work is designed to prevent extinctions or reverse the decline of species, and restore ecosystems and their related socioeconomic benefits. Twenty-five coastal states, including Mississippi and U.S. territories, currently participate in this program.

National Marine Fisheries Service (NMFS) - <u>National Marine Mammal Stranding Network</u> and <u>http://www.nmfs.noaa.gov/pr/health/prescott/2015funded.html</u> John H. Prescott Marine Mammal Rescue Assistance Grant Program

The National Marine Mammal Stranding Network and its trained professionals respond to dead or live marine mammals in distress that are stranded, entangled, out of habitat or otherwise in peril. Our long-standing partnership with the Network provides valuable environmental intelligence, helping NOAA establish links among the health of marine mammals, coastal ecosystems, and coastal communities as well as develop effective conservation programs for marine mammal populations in the wild. There are four stranding network members in the state.

NOAA Fisheries funds eligible members of the Stranding Network through the competitive John H. Prescott Marine Mammal Rescue Assistance Grant Program. Since 2001, \$48.2 million has been awarded to 552 grantees who raised over \$15.9 million in matching funds. In FY15, 34 grantees received \$2.7million.

National Marine Fisheries Service (NMFS) - Sea Turtle Salvage and Stranding Network

The Sea Turtle Stranding and Salvage Network (STSSN) was formally established in 1980 to collect information on and document strandings of marine turtles along the U.S. Gulf of Mexico and Atlantic coasts. The network, which includes federal, state and private partners, encompasses the coastal areas of the eighteen-state region from Maine to Texas, and includes portions of the U.S. Caribbean. Data gathered by the Network helps inform bycatch reduction efforts, track factors affecting turtle health, and provide other information needed for sea turtle management and population recovery.

National Ocean Service (NOS) - National Water Level Observation Network

NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) operates three long-term continuously operating tide stations in the state of Mississippi located at Pascagoula, Ocean Springs, and Bay Waveland Yacht Club which provide data and information on tidal datum and relative sea level trends. These stations have been strengthened to deliver real-time storm tide data during severe coastal events. Each station is associated with a set of tidal benchmarks installed in the ground that is used to reference the height of the water levels and helps connect the water level to land.

National Ocean Service (NOS) - Navigation Manager

NOAA's navigation managers work directly with pilots, port authorities, and recreational boating organizations in Mississippi. They help identify the navigational challenges facing marine transportation in Mississippi and provide NOAA's resources and services that promote safe and efficient navigation. Navigation managers are on call to provide expertise and NOAA navigation response coordination in case of severe coastal weather events or other marine emergencies. The Office of Coast Survey has a navigation manager in Lafayette, LA to support mariners and stakeholders in Central Gulf Coast waters.

National Ocean Service (NOS) - Coastal and Estuarine Land Conservation Program

The Coastal and Estuarine Land Conservation Program (CELCP) brings conservation partners together to protect coastal and estuarine lands considered important for their ecological, conservation, recreational, historical, or aesthetic values. To date CELCP has protected more than 100,000 acres of land nationally and awarded six grants in Mississippi. The program provides state and local governments with matching funds to purchase significant coastal and estuarine lands, or conservation easements on these important lands that are threatened by development. Lands or conservation easements acquired with CELCP funds are protected in perpetuity so that they may be enjoyed by future generations. CELCP has created an interactive map highlighting information about completed projects in your state.

National Ocean Service (NOS) - Coastal Management Program

Through a unique Federal-state partnership, NOAA's Office for Coastal Management (OCM) works with the Mississippi Department of Marine Resources to implement the National Coastal Zone Management Program in Mississippi. OCM provides the coastal management program with financial and technical assistance to further the goals of the Coastal Zone Management Act and ensure our coastal waters and lands are used in a balanced way to support jobs, reduce use conflicts, and sustain natural resources.

National Ocean Service (NOS) - Gulf of Mexico Environmental Response Management Application

Assessing important spatial information and designing successful restoration projects rely upon interpreting and mapping geographic information, including the location, duration, and impacts from oil spills, other hazardous materials, or debris released into the environment. Gulf of Mexico ERMA® is an online mapping tool that integrates both static and real-time data, such as Environmental Sensitivity Index (ESI) maps, ship locations, weather, and ocean currents, in a centralized, easy-to-use format for environmental responders and decision makers. Gulf of Mexico ERMA integrates this key information to support environmental and severe-weather responses in the Gulf of Mexico.

National Ocean Service (NOS) - Marine Debris Projects and Partnerships

The NOAA Marine Debris Program (MDP) leads national and international efforts to research, prevent, and reduce the impacts of marine debris. The program supports marine debris removal, education and outreach, and research projects in partnership with state and local agencies, tribes, non-governmental organizations, academia, and industry. The MPD has partnered with the University of Southern Mississippi to research the frequency of plastic ingestion in local gulf fish species.

National Ocean Service (NOS) - Gulf of Mexico Coastal Ocean Observing System

The U.S. Integrated Ocean Observing System (IOOS)® Program is an operational system and a network of regional partners responsible for regional observations, data management, modeling and analysis, education and outreach, and research and development. The overarching purpose of U.S. IOOS is to address regional and national needs for ocean data and information. The Gulf of Mexico Coastal Ocean Observing System (GCOOS) seeks to establish a sustained observing system for the Gulf of Mexico that will provide observations and products needed by users in the region for the purposes of detecting and predicting climate variability and consequences, preserving and restoring healthy marine ecosystems, ensuring human health, managing resources, facilitating safe and efficient marine transportation, enhancing national security, and predicting and mitigating against coastal hazards.

MS-2

Holly Springs

National Environmental Satellite, Data, and Information Service (NESDIS) and Office of Oceanic and Atmospheric Research (OAR) - U.S. Climate Reference Network

The U.S. Climate Reference Network (USCRN) is an operationally viable research network of 134 climate stations that are deployed nationwide. Data from the USCRN are used in various climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN provides the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS).

Goodwin Creek

Office of Oceanic and Atmospheric Research (OAR) - Surface Radiation Measurement Network

The Earth System Research Laboratory operates seven stations as part of its surface radiation measurement network (SURFRAD). The station measurements support regional and global weather and climate research with accurate, continuous, long-term measurements of the surface radiation budget over the United States. Solar radiation is the driving energy for geophysical and biological processes that control weather and affect planetary life; understanding the global surface energy budget is therefore key to understanding climate and the environmental consequences to agriculture and other statewide concerns. Because it is impractical to cover the whole earth with monitoring stations, the answer to global coverage lies in reliable satellite-based observations. Accurate and precise ground-based measurements across a range of climate regions are essential to refine and verify the satellite observations. One of these stations is located near Goodwin Creek. These ground-based measurements also support special research projects on radiation and climate processes in the Mississippi region and serve as important verification for weather forecasts.

Indianola

National Marine Fisheries Service (NMFS) - Mississippi Delta Lot Inspection Office

The National Seafood Inspection Program conducts a voluntary inspection program for fishery products on a fee-for-service basis. The office offers a wide range of services to the area's fishermen and fish processors including process and product inspection, product grading, lot inspection, laboratory analysis, and training. All edible foodstuffs, ranging from whole fish to formulated products, as well as fishmeal used for animal foods, are eligible for inspection and certification.

MS-3 Jackson

National Ocean Service (NOS) - National Geodetic Survey

The Geodetic Advisor is a jointly funded National Ocean Service (NOS) employee that resides in the state to provide liaison between NOS and the host state. The Geodetic Advisor guides and assists the state's charting, geodetic, and surveying programs through technical expertise. The program is designed to fill a need for more accurate geodetic surveys, and is in response to the desire of states to improve their surveying techniques to meet Federal Geodetic Control Subcommittee standards and specifications. The surveys provide the basis for all forms of mapping and engineering projects, and monitoring of the dynamic Earth. This program also provides technical assistance in planning and implementing Geographic/ Land Information System (GIS/LIS) projects.

National Weather Service (NWS) - Weather Forecast Office

Located at Jackson Municipal Airport, this NWS Weather Forecast Office (WFO) is staffed around-the-clock every day, and provides the best possible weather, water, and climate forecasts and warnings to residents of most of Mississippi, and portions of northeastern Louisiana and southeastern Arkansas. Highly trained forecasters issue warnings and forecasts for events, including severe thunderstorms, tornadoes, winter storms, floods, and heat waves. This essential information is provided to the general public, media, emergency management and law enforcement officials, the aviation and marine communities, agricultural interests, businesses, and others. Information is disseminated in many ways, including through dedicated government channels, satellite, the Internet, and NOAA Weather Radio All Hazards.

Forecasters also provide Impact-based Decision-Support Services (IDSS), both remotely and on-site, during critical emergencies, such as wildfires, floods, chemical spills, and for major recovery efforts such as those following the Joplin and Moore tornadoes, Hurricanes Katrina and Sandy, and the Sept. 11, 2001, terrorist attacks in New York City and Washington D.C. The WFO collects and disseminates precipitation, river, and rainfall data, and prepares local climatological data. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs, which helps build strong working relationships with local partners in emergency management, government, the media and academic communities. The WFO operates Automated Surface Observing Stations (ASOS), as well as the local Doppler Weather Radar, which provides critical information about current weather conditions. The radar data enables forecasters to issue warnings for tornadoes, severe thunderstorms, and flash floods.

NOAA Office of Education - Center for Atmospheric Sciences

The NOAA Center for Atmospheric Sciences (NCAS) is led by Howard University in collaboration with five partners: Jackson State University, the University of Texas at El Paso, the University of Puerto Rico at Mayaguez, the State University of New York at Albany, and University of Maryland College Park. This Center is part of NOAA's Educational Partnership Program with Minority Serving Institutions. NCAS research improves the accuracy of weather and climate forecast models (particularly in predicting precipitation), studies atmospheric chemical processes and their effects on local, regional, and global scales, and produces highly educated and skilled students from underrepresented communities for research and operational careers in weather and climate prediction. NCAS' primary collaborator is the National Weather Service.

NOAA Office of Education - Environmental Cooperative Science Center

The NOAA Environmental Cooperative Science Center (ECSC) is led by Florida A&M University in collaboration with its partner institutions: Creighton University, Delaware State University, Jackson State University, Texas A&M University-Corpus Christi, and the University of Texas at Brownsville. ECSC is part of NOAA's Educational Partnership Program with Minority Serving Institutions. ECSC educates a new generation of highly skilled environmental scientists in NOAA mission sciences, and develops the natural and social science tools for integrated assessments of ecosystem health in support of coastal environmental decision-making. The ECSC addresses coastal and marine environmental issues through research collaborations with the National Ocean Service and selected sites of the National Estuarine Research Reserve System.

Newton

National Environmental Satellite, Data, and Information Service (NESDIS) and Office of Oceanic and Atmospheric Research (OAR) - <u>U.S. Climate Reference Network</u>

The U.S. Climate Reference Network (USCRN) is an operationally viable research network of 134 climate stations that are deployed nationwide. Data from the USCRN are used in various climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN provides the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS).

MS-4

Bay St. Louis

National Environmental Satellite, Data, and Information Service (NESDIS) - <u>National Centers for Environmental</u> <u>Information</u>

NOAA's National Centers for Environmental Information (NCEI) are responsible for hosting and providing access to one of the most significant archives on earth, with comprehensive oceanic, atmospheric, and geophysical data. From the depths of the ocean to the surface of the sun and from million-year-old tree rings to near real-time satellite images, NCEI is the Nation's leading authority for environmental information. By preserving, stewarding, and maximizing the utility of the Federal government's billion-dollar investment in high-quality environmental data, NCEI remains committed to providing products and services to private industry and businesses, local to international governments, academia, as well as the general public. NCEI headquarters are located in Asheville, North Carolina with other major locations in Boulder, Colorado; Silver Spring, Maryland; and Stennis Space Center, Mississippi. NCEI's Coastal Data Development program is managed out of the Stennis Space Center, with partnerships across NOAA and with agencies in federal, state, and local government, academic institutions, and nongovernmental organizations that collect or provide coastal data and information.

National Marine Fisheries Service (NMFS) - Mississippi Laboratories

The Stennis Space Center facility of the Mississippi Laboratories conducts research on advanced technologies such as electronic data collection technologies, and automated underwater vehicles. Research and modeling activities are also conducted to support oceanographic and ecosystem assessments. Scientists monitor annual hypoxic events in the Gulf of Mexico, track mortalities of stranded sea turtles, determine the impacts of environmental factors on fish abundance, and model plankton distribution and abundance in relation to ocean currents and other oceanographic factors. Research is also focused on mapping marine habitats through single- and multibeam acoustics. This facility provides engineering support for marine resource surveys through the design and construction of innovative data collection methods such as digital video camera systems, automated underwater vehicles, and gliders.

National Weather Service (NWS) - National Data Buoy Center

The National Weather Service (NWS), through its National Data Buoy Center (NDBC), develops, deploys, operates, and maintains the current national data buoy network of moored and drifting weather buoys and land stations that serve all of the Nation's coastal states and territories. Within this network, 110 of the buoys and 51 of the land stations are maintained directly by NDBC. Located at NASA's Stennis Space Center in Bay St. Louis, NDBC supports weather and marine warning and forecast services in real time by providing deep ocean and coastal meteorological and oceanographic observations. These data provide valuable information used by NWS supercomputers to produce computer-generated model forecasts of the atmosphere and climate. NDBC also supports operational and research programs of NOAA and other national and international organizations. NDBC also operates NOAA's network of Deep-ocean Assessment and Reporting of Tsunami (DART®) stations, for the early detection and real-time reporting of tsunamis in the open ocean. Data from the DART®s are used by the National Weather Service Tsunami Warning Centers in Alaska and Hawaii to provide tsunami forecasts, warnings, and information. NDBC also operates the Tropical Atmosphere Ocean Array of buoys in the tropical Pacific. The TAO/TRITON array consists of approximately 70 moorings in the Tropical Pacific Ocean. The array is a major component of the El Niño/Southern Oscillation (ENSO) Observing System, the Global Climate Observing System (GCOS) and the Global Ocean Observing System (GOOS). These data provide valuable information used by NWS super computers to produce computer generated model forecasts of the atmosphere, and climate.

NOAA Acquisition and Grants Office - National Data Buoy Center Office

The Acquisition and Grants Office provides financial assistance and acquisition services for NOAA by overseeing and implementing all processes related to contracts and grants.

Office of Oceanic and Atmospheric Research (OAR) - Northern Gulf Institute

The Northern Gulf Institute (NGI) was established at Stennis Space Center, Mississippi, in October 2006. NGI is a consortium of universities led by Mississippi State University, in partnership with the University of Southern Mississippi, Louisiana State University, Florida State University, and Dauphin Island Sea Lab. The fundamental philosophy of NGI is integration: integration of the land-coast-ocean-atmosphere continuum; integration of research to operations; and integration of individual academic institutional strengths into a holistic research and educational program specifically geared to the needs of Northern Gulf of Mexico users. Among NGI's major NOAA research collaborators are the National Weather Service, the Office for Coastal Management, the Office of Oceanic and Atmospheric Research, the Atlantic Oceanographic and Meteorological Laboratory, the National Ocean Service (NOS), the National Coastal Data Development Center, the National Data Buoy Center, the National Marine Fisheries Service, and the National Sea Grant Office. NGI conducts research under four scientific themes, focusing on the northern Gulf of Mexico: (1) ecosystem management; (2) geospatial data integration and visualization in environmental science; (3) climate change and climate variability effects on regional ecosystems; and (4) coastal hazards.

Office of Oceanic and Atmospheric Research (OAR) - Science On a Sphere®

Science On a Sphere (SOS) is a room-sized global display system that uses computers and video projectors to display planetary data onto a six foot diameter sphere, analogous to a giant animated globe. Researchers at NOAA developed Science On a Sphere® as an educational tool to help illustrate Earth System science to people of all ages. Animated images of atmospheric storms, climate change, and ocean temperature can be shown on the sphere that is used to explain complex environmental processes in a way that is simultaneously intuitive and captivating.

Gulfport

National Ocean Service (NOS) - Mississippi Spatial Reference Center

In a partnership with NOAA, the Mississippi Spatial Reference Center (MSRC) serves as a new way of providing a spatial referencing liaison between Federal and local authorities. The Center is a nonprofit organization located at the Gulf Coast Geospatial Center (GCGC), University of Southern Mississippi. The mission of the GCGC/MSRS is to provide coastal geospatial information, research, and applications that will benefit both the public and private sector. Current project areas include the Mississippi Height Modernization Program, remote sensing science and technology to address topics of importance to the ecology and economy of the northern Gulf of Mexico, and the Mississippi Digital Coast Initiative.

Moss Point

National Ocean Service (NOS) - Grand Bay National Estuarine Research Reserve

The 18,400 acre Grand Bay Reserve, designated in 1999 and managed by the Mississippi Department of Marine Resources, is one of the most biologically productive estuaries in the northern Gulf of Mexico. The site includes part of the Grand Bay National Wildlife Refuge. The reserve's new environmentally friendly 20,000 square-foot headquarters demonstrates the use of sustainable "green" building features and provides office, laboratory, classroom, and dormitory facilities. Research topics include sea-level rise, habitats, ecosystem effects of atmospheric mercury, coastal plant ecology, and environmental monitoring. The reserve also provides educational and training opportunities.

Office of Oceanic and Atmospheric Research (OAR) - Atmospheric Mercury Monitoring Network

NOAA maintains a specialized ambient air mercury measurement site at the Grand Bay Reserve in Moss Point, Mississippi. The site is operated in collaboration with the Grand Bay National Estuarine Research Reserve and is a part of the National Atmospheric Deposition Program's Atmospheric Mercury Monitoring Network (AMNet). The state-of-the-art monitoring site provides semi-continuous measurements of reactive gaseous mercury, elemental mercury, and particulate mercury in air. Additional data are collected for ambient air concentrations of trace gases (e.g., sulfur dioxide, nitrogen oxides, carbon monoxide, ozone), as well as meteorological parameters such as temperature, humidity, precipitation, wind speed and direction. The site, operated since September 2006, provides high quality data to air quality and mercury transport models.

Pascagoula

National Marine Fisheries Service (NMFS) - National Seafood Inspection Laboratory

The National Seafood Inspection Laboratory (NSIL) provides analytical laboratory services, fish meal export certification, data management, regulatory risk analysis and policy development, and support for national and international seafood safety and aquatic animal health activities. NSIL conducts a wide range of laboratory analyses for chemical and microbiological hazards and fraud in imported and domestic seafood products. Data from the analyses are used for export certifications, regulatory and criminal enforcement, consumer consumption advisories, and to verify the performance of seafood hazard control plans. NSIL also manages several import control programs, which include the processing and reporting of data collected for the Patagonian toothfish, swordfish, bigeye tuna, and bluefin tuna. NSIL's import monitoring programs also respond to international data requests and issue mandatory reports to several regional fishery management organizations.

National Marine Fisheries Service (NMFS) - Fishery Statistics Office

Field agents serve as the principle data collection agent for marine fisheries throughout the Southeast U.S. (NC-TX). They implement and coordinate surveys involving the collection of fishery related data from the public. Responsibilities and functions are to develop, implement, operate, and manage an integrated fishery statistical data acquisition program for research and fishery management. The Southeast Fisheries Science Center is the headquarters for the Southeast Port Agent program. A field agent is stationed in Pascagoula, MS.

National Marine Fisheries Service (NMFS) - Pascagoula Laboratory

The Pascagoula Mississippi Laboratory conducts fisheries-independent resource surveys to monitor the number, distribution, and health of marine resources and their habitats in the Gulf of Mexico, South Atlantic, and Caribbean. Information on abundance and distribution of fish, marine mammals and sea turtles are used to assess and predict the status of fish stocks, marine mammals and other protected resources; develop and ensure compliance with fishery regulations; restore and protect habitat; and recover threatened and endangered species in waters off Mississippi and throughout the Southeast Region.

The Pascagoula Laboratory is NOAA's only fishing gear development, testing, and engineering facility in the southeast. Engineers and scientists design, test, develop and evaluate new fishing gears and harvesting strategies to minimize interactions with protected resources and reduce incidental bycatch mortality. Research in advanced technologies improves our data collection programs, and ecosystem assessment research furthers our understanding of the interactions between the environment and marine resources. The Southeast Area Monitoring and Assessment Program (SEAMAP) and the Marine Resources Monitoring, Assessment, and Prediction Project (MARMAP) are coordinated and managed in Pascagoula. The Southeast Fisheries Science Center has port agents stationed in Pascagoula, charged with collecting marine fisheries data used in research and fishery management. Pascagoula oversees a satellite facility at Stennis Space Center and the combination of these two facilities is referred to as the "Mississippi Laboratories."

National Ocean Service (NOS) - Pascagoula PORTS®

A Physical Oceanographic Real-Time System (PORTS®) is operated cooperatively with the local maritime community in Pascagoula at which real-time data are quality-controlled and disseminated to local users for safe and efficient navigation. CO-OPS partners with the Port of Pascagoula to deliver real-time observations and predictions of water levels, currents, and meteorological parameters.

Office of Marine and Aviation Operations (OMAO) - NOAA Ships Oregon II, Pisces, and Gordon Gunter

The NOAA ships *Oregon II, Pisces,* and *Gordon Gunter* are managed by NOAA's Marine Operations Center-Atlantic in Norfolk, Virginia. The ships support the science and research missions of NOAA's Southeast Fisheries Science Center and its allied laboratories. The ships are homeported at the Gulf Marine Support Facility in Pascagoula and the Port Captain provides operational, administrative and logistical support to the ships. All vessels support NOAA's mission to protect, restore, and manage the use of coastal and ocean resources through an ecosystem approach to management.

All of the vessels are operated under the direction of officers from the NOAA Commissioned Officer Corps. The NOAA Corps today provides a cadre of professionals trained in engineering, earth sciences, oceanography, meteorology, fisheries science, and other related disciplines. Officers operate ships, fly aircraft, manage research projects, conduct diving operations, and serve in staff positions throughout NOAA.

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NOAA In Your State Mississippi



